The Effects of Earnings Per Share and Dividend Per Share on Listed Banks' Stock Prices in Nigeria

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DOI: https://dx.doi.org/10.47772/IJRISS.2024.805158

Received: 14 May 2024; Accepted: 21 May 2024; Published: 22 June 2024

ABSTRACT

This research focuses on assessing the impact of DPS and EPS on listed banks' share prices in Nigeria. The population of the research is all the twelve conventional banks listed on The Nigerian Stock Exchange. Data were collected from the annual reports of the banks, statistical bulletin and the Nigerian Stock Exchange's publications. Panel data regression analysis was used to analyze the secondary data obtained. The findings show that DPS and EPS have significant positive impacts on the share prices of listed banks with positive coefficients of 14.65 and 1.02 respectively. It was found that the impacts of each of DPS and EPS were statistically significant. It was also found that the impact of DPS on the share prices of the listed banks was more than that of EPS. The study therefore recommends that directors of a listed bank in Nigeria should manage the bank's EPS and DPS for their impact on the stock price.

INTRODUCTION

Stock price may be described as the amount of money an investor pays or receives for a unit of stock bought or sold. But how does an investor establish the amount to be paid or received in exchange for purchase or sale of a unit of stock? The practice of determining the price of stock has evolved over the year.

Coleman (2006) classified the evolution of share pricing into five stages. At the first stage of pricing of a company as a going concern, the prices for a private company was expressed as a unit of the whole company which was later improved in 4th century to give birth to three ratios including: price per unit of earning based on income statement; price per unit of net worth based on balance sheet and price per unit of cashflow based on the fund flow statement. In the second stage, the emphasis shifted from pricing the whole company to pricing shares of companies in 16th century. According to Coleman, it was at this stage that stock exchanges were established and stock market investors followed the unit-pricing practices in the private markets for closely held companies when they expressed prices in terms of price/earnings ratio, price book ratio and price cashflow ratio. He added that because of greater importance of cash dividends paid to investors in publicly traded companies, price/dividends ratio was included. Coleman stated that the emphasis shifted in the third stage from heuristic pricing to scientific measure of pricing such as discounted cash flow technique and dividend discount model in 1938. He further stated that the fourth stage gave birth to a shift from ratios for pricing to scientific models for pricing, and from pricing shares of stock in a company to pricing portfolios of stock in a number of companies. Modern portfolio theory by Harry Markowitz 1952 and Capital Assets Pricing Model by Williams Sharpe in 1964 were developed in this stage. The fifth and final stage of Coleman's evolution of share pricing saw a move from scientific model of return for stock portfolio pricing to pseudo-scientific return model for stock portfolio pricing, such as book-

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS |Volume VIII Issue V May 2024

to-price ratio, earnings/price ratio, and dividend/price ratio. The models for stock portfolio pricing followed the practices in the private markets for closely held companies but with a change from unit pricing to price yield.

Osaze (2007) states that the promulgation of the Capital Issues Commission Decree in Nigeria in 1963 empowered the Capital Issue Committee (the then apex regulatory body for the Nigeria capital market) to determine the price and timing of new issues of securities through offer for sale or for subscription in Nigeria. According to Osaze, the Federal Government of Nigeria formally deregulated the capital market in 1993, thus ending the official pricing, timing and allotment of securities issues, passing on these functions to the issuing houses to perform. However, this relates to pricing of shares in the primary market. In the secondary market, the prices are determined by investors in the market place in the light of several factors.

Over the ages, many have wondered about the variables responsible for movements in stock prices. A good number of scholars and analysts have carried out a lot of studies aimed at determining the causes of stock price movements. Some even tried to find out how to compute the right price or intrinsic value of a stock, including Walter (1963), Miller and Modigliani (1961), etc. As a result, they propounded some theories in support of their propositions. Thus some theories exist today which attempt to establish the way to obtain the value of a stock. While the scholars and the analysts alike did not agree on a single factor that is exclusively responsible for the movement in stock prices, the position of many of them is that many factors play one role or the other to set the stock price in a capital market. Some of the factors identified by various writers as being responsible for movements in shares prices include: earnings, price earnings ratio, dividend policy, discount rate, risk associated with the stock, general economic conditions, inflation, economic strength of market and peers, alternative investment opportunities, incidental transactions, demographics, trends, liquidity, effect of currency market, and market sentiment.

Harper (2017) grouped the factors in three categories: fundamental, technical, and market sentiment. Fundamental factors include earnings, dividends, price earnings ratio, discount factor and risks associated with the stock. Following Harper's classification, technical factors would include: general economic conditions, inflation, economic strength of market and peers, alternative investment opportunities, incidental transactions, demographics, trends, liquidity, effect of currency market. An example of this is the impact of the 2007/2008 global financial crises on stock prices of companies listed on The Nigerian Stock Exchange (Njiforti, 2015). Harper asserts that stock prices would be determined primarily by fundamentals in an efficient market, but sometimes sentiments have greater impacts on share prices due to market inefficiency. He further explained that different types of investors depend on different factors: short-term investors and traders tend to incorporate and may even prioritize what he described as technical factors; long-term investors prioritize fundamentals and recognize that such technical factors play an important role.

According to Zulkarnaen et al (2016) fundamental factors may be sub-classified into two: economic fundamental (e.g. Inflation rate, bank interest rate, gross domestic products); and fundamental of the company (e.g. return on assets, net profit margin and total assets turnover, debt equity to ratio). Just like Harper, they also opine that analysis of fundamental factors should be used for long term period investment and such factors as stock volume and past stock prices analysis should be used for short term period investment.

Market price of a share is distinct from its intrinsic value. Although, fundamental factors are used to determine the intrinsic value of a share, the market price is determined at market place by a number of factors which may not necessarily be the fundamentals playing (Coleman, 2006). However, the intrinsic value of a share can be an estimate of its fair price.

Islam *et al* (2014) are of the opinion that share prices are determined by macro-economic factors such as: interest rate, effect of currency market, inflation, deflation, economic outlook, changes in economic policy;

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS |Volume VIII Issue V May 2024

micro-economic factors including: demand and supply of the shares, high corporate profits, etc; as well as investors' sentiment. Zulkarnaen *et al* (2016) opine that analysis of both factors which Harper listed above as fundamental and technical should be used for long term period investment and such factors as stock volume and past stock prices analysis which they described as technical factors should be used for short term period investment. Recent research on developed markets has shown significant relationship between stock returns and the sentiment of the market (Chowdhury *et al*, 2014). However, there is no set benchmark to measure the investors' sentiment (Alam *et al*, 2016).

Two of the fundamental factors identified as having impacts on share price are Dividend Per Share (DPS) and Earnings Per Share (EPS). Dividends policy of an enterprise affects investors' decision as to whether to buy, hold or sell its stock, and at what price these would happen, (Ojeme*et al*, 2015). On the other hand, Islam*et al* (2015) assert that DPS and EPS among many other factors influence investors' decisions in the capital market. The results of this study which provide that the means of the data gathered were 4.33 for DPS and 4.12 for EPS suggest that DPS exerts higher influence on the stock prices in Nigeria than EPS. The focus of this study is to examine the impacts of DPS and EPS on share price and to determine which of the two variables has greater impact on the share price of listed deposit money banks in Nigeria.

Objective of the Study

The main objective is to establish whether the impact of DPS on share prices of Nigerian listed banks is higher than that of EPS on the share prices of the listed banks. The specific objectives are to:

1. Assess the impact of EPS on the share prices of listed banks in Nigeria;
2. Evaluate the impact of DPS on share prices of the listed banks in Nigeria;
3. Determine whether the impact of DPS on the share prices of the listed banks in Nigeria is more than that of EPS on the share prices.

Research Questions

1. What is the impact of EPS on share prices of the listed banks in Nigeria?
2. What is the impact of DPS on share prices of the listed banks in Nigeria?
3. Is the impact of DPS on share prices of the listed banks in Nigeria higher than that of EPS on the share prices?

Research Hypothesis

Hypothesis 1

H_0: EPS has no significant impact on share prices of listed banks in Nigeria.

H_1: EPS has a significant impact on share prices of listed banks in Nigeria.

Hypothesis 2

H_0: DPS has no significant impact on share prices of listed banks in Nigeria.

H_1: DPS has a significant impact on share prices of listed banks in Nigeria.

On the basis of the above testing conclusion could be reached on whether the impact of DPS on the share prices is more than that of EPS on share prices.

The rest of the study was organized in this way: In section two, the study considered the literature review

and theoretical framework. Section three brought the methodology into fore and in section four, data analysis, results, and discussions were considered. In section five, summary, conclusion and recommendations, as well as contribution to knowledge were considered.

LITERATURE REVIEW

Conceptual Review

Earnings: A shareholder has claims on the earnings of a firm which is measured by EPS. EPS is an accountant's measure of income to investors. EPS is defined as the owner's return on his or her investment (Harper, 2017). According to Pandey (2005), it is calculated by dividing the profit after tax by the total number of shares outstanding. An investor who buys a share has purchased a stream of future earnings of the firm. In the words of Harper (2017), when you buy a stock, you are purchasing a proportional share of an entire future stream of earnings; that is the reason for the valuation multiple: it is the price you are willing to pay for the future stream of earnings. In other to obtain the rights to the stream of future earnings of the firm, the investor would be required to pay a price which is estimated value of such earnings. This estimate may be made using the past and current earnings as well as its forecast earnings, and environmental conditions. Thus the rise and fall of the earnings of a firm reflects in the movement of stock prices in the market. Bhatt and Sumangala (2012) support the motion that EPS impacts the market value of equity shares.

Dividend Per Share (DPS): DPS can be defined as the earnings distributable to ordinary shareholders divided by the number of ordinary shares outstanding (Pandey, 2005). According to Pandey, the value of a share depends on cash flows expected by investors and risk associated with those cash flows. He further explains that cash flows expected from equity share consists of dividends that the owner expects to receive while holding the share and the price which he expects to obtain when the share is sold. The firm can pay out all this earnings as dividends, in this case the EPS equals DPS and hypothetically, share price will remain constant in the future. Alternatively, the firm may retain all its earnings and thus pays no dividends, if this happens, it is expected that the share price will increase as a result of reinvestment of the earnings. However, investors may avoid the two extremes and prefer a middle way where a firm pays out a portion of its EPS and retains the rest. Hunjra et al (2014) in his study, concluded that dividend policy has a significant impact on share prices. In their study based on selected companies listed on The Nigerian Stock Exchange, Ordu*et al* (2014) also found that there is a positive relationship between dividend payment and market share prices.

Theoretical Review

Dividend Irrelevance Hypothesis: According to Miller and Modigliani's Dividend Irrelevance Hypothesis, under a perfect market situation, the dividend policy of a firm does not impact on the stock prices (Modigliani & Miller, 1961). They argue that the value of a firm depends on the firm's earnings which results from its investment decisions. This implies that when investment policies of a firm are given, the dividend policy is irrelevant. For example, if a firm pays excess dividend than a shareholder's needs, the shareholders will use the extra income received to acquire additional shares of the firm at the market price. On the other hand if the firm pays no dividends and the shareholder requires cash, the shareholder will sell some of its shares at the market price to raise the fund needed. Under the model, the rate of return is assumed to equal the cost of capital, and identical for all shares. This implies that the price of each share must be adjusted until rate of return (dividend + capital gain) is equal to cost of capital). The hypothesis is based on the following assumptions: The firm operates in a perfect capital market where there is where investors behave rationally; information is freely available to all; transaction and floatation costs do not exists; no investor is large enough to affect the market price of a share; there is no taxes or there is no tax difference between capital gains and dividends; the firm has a fixed investment policy; there are no risks and

investors can forecast future prices and dividends with certainty; however, the assumptions of the hypothesis are rarely obtainable in real world situation. The hypothesis is deficient in the ideal situations where there is uncertainty; existence of transaction costs; information asymmetry and agency costs; tax differential.

Dividend Relevance Theory: This is discussed in two subheadings – Sum of Perpetuities Model and Bird-in-Hand Theory.

Sum of Perpetuities Model: This model states that the choice of dividend policy affects the value of the firm (Walter, 1963). Walter states that the value of a firm is the present value of infinite stream of dividends received by a shareholder plus the present value of capital gains. He explained that the relationship between the rate of return and cost of capital is the choice of a dividend policy that would maximise the wealth of shareholders. According to his analysis, a firm should adopt 100% retention policy if rate of return is greater than cost of capital; and should adopt 100% pay-out ratio if rate of return is less that cost of capital. He maintains that dividend or retention policy has no effect if rate of return is equal to cost of capital. Walter's model is based on the assumptions that: the firm finances all investments through retained earnings; firms rate of return and cost of capital are constant; all earnings are either distributed as dividends or reinvested internally immediately; EPS and DPS are constant; the firm has an infinite life. One of the criticisms of Walter's model is on the assumption that a firm finances all its investments with internal funds. When this happens, it leads to sub-optimal investment or dividend decision. The other is on the assumption that the rate of return and cost of capital of the firm are constant. These situations are not the true-life scenarios.

Bird-in-Hand Theory: Paying larger dividends reduces risk, which in turn may influence the cost of capital and hence the stock price (Gordon, 1963). According to the model developed by Gordon in 1959 and 1963, the value of a share is a present value of an infinite stream of dividends received by a shareholder. Where part of the earnings is reinvested, this will lead to growth in earnings and dividends at a growth rate which equals the rate of return of the firm multiplied by retention rate. Under uncertainty, a share that pays more dividends is preferred by investors to the other that pays less dividends. Given two companies in the same general position and with the same earning power, the one paying the larger dividends will always sell at a higher price Pandey (2005). Gordon's model is based on the same assumption as that of Walter's model, and so suffers the same criticism as Walter's.

Efficient Market Hypothesis: Efficient Market Hypothesis is widely accepted concept in the world of finance. The hypothesis was developed in 1960s by Eugene Fama. The hypothesis states that it is not possible to beat the market, as prices in the market already incorporate and reflect all relevant information which may impact a stock price. Efficiency of a market exists in three forms, namely weak form, semi-strong and strong form (Dupernex, 2007). Market efficiency is in its weak form if the stock prices reflect historical financial information, meaning that it is not possible to beat the market by analysing the past prices; it is in its semi-strong form if the stock prices reflect all information available in the market and no one can beat the price by analysing the publicly available information; and it is in its strong efficient form if the stock prices reflect both publicly available information and unpublished information, which means that no one can beat the market by analysing both published and insider information (Al-Shamali, 1989). Many scholars are of the opinion that most markets are in their semi-efficient form.

Random Walk Theory: Random walk theory was popularized by Buron Malkiel in 1973. The theory states that markets are efficient and that it is not possible to beat or predict the market because stock prices reflect all available information, and the occurrence of new information is seemingly random as well (Malkiel, 2003). Hence, assumptions made under Random Walk Hypothesis are similar to those made under Efficient market Hypothesis given that Random Walk Hypothesis is developed under efficient Market Hypothesis. Black (1971) supports Random Walk Hypothesis. Black concludes his study by stating that technical analysis does not work just as fundamental analysis does not. He suggests that passive investing strategy is the best of all based on Random Walk Hypothesis. Levy (1967) contends with Random Walk Hypothesis,

and argues that stock prices follow discernible trends and patterns which have predictive significance.

Empirical Review

Impact of EPS on Share Price

Bhatt and Sumangala (2012) conducted an empirical study on the Impact of EPS on Market Value of an Equity Share in Indian Capital Market. They concluded that EPS impacts the market value of an equity shares in the Indian context. The analysis was conducted for each year from 2006/07 to 2010-11. The coefficient obtained in the analysis included: 25.85, 9.98, 11.48, 25.89, and 16.69 for 2006/07, 2007/08, 2008/09, 2009/10, and 2010/11 respectively. These implies that if a company increased its EPS by Re-1 in 2006/07 year the market value of equity shares would increase by Re-25.86 in that year.

In a study on Factors Affecting the Stock Price Movement which was conducted in Dhaka Stock Exchange, Bangladesh, Islam*et al* (2014) found that share prices do not move as fast as EPS and that share prices move in line with micro and macro-economic factors of the economy. They recommended that investors must consider other factors as well as EPS when investing in the security market, have good knowledge of the company they are investing in, adopt portfolio investment strategy, monitor their companies continuously.

In another study on Factors Affecting the Stock Price Movement (a Case Study on Dhaka Stock Exchange), Islam*et al* (2015) examined 17 factors which are considered to have effects on the movement of stock prices. They concluded that while these factors, and many more have effects on the movement of stock prices, the study got 7 core factors that have more influence on the stock market pricing than others. These factors each of which had a mean score of at least 4.00 include: trends; economic strength of market or peer; economic factors; EPS; industry performance; substitutes; P/E ratio. The study showed that certain factors which scored a mean less than 3.00 played the minimal part in stock market pricing, including share buy-back; company news; and incidental transactions.

Impact of DPS on Share Price

In a study conducted by Hunjra*et al* (2014), it was concluded that dividend yield and dividend payout ratio which are both measures of dividend policy have significant impact on stock price. Dividend yield is negatively related with stock price and dividend payout ratio is positively related with stock price meaning that these results are against dividend irrelevance theory. The study was focused to examine the effect of dividend yield, dividend payout ratio, return on equity, earning per share and profit after tax on stock prices in Pakistan. For this purpose four non-financial sectors (Sugar, Chemical, Food and personal care, Energy) have been selected. A sample of 63 companies listed at Karachi stock exchange, were drawn from non-financial sectors covering Sugar, Chemical, Food and personal care, Energy was analyzed for the period of 2006-2011, using Ordinary Least Square Regression model has been applied on panel data.

Ojeme*et al* (2015) conducted a research titled, “Dividend Policy and Shareholders’ Wealth in Nigerian Quoted Banks.” In the research, using the result of correlation coefficient between Dividends Per Share (DPS) and share prices of listed banks in Nigeria, they concluded that dividend policy of an enterprise affects its stock price, and that dividend policy is not the only factor that affects the stock price of an enterprise.

Whether the Impact of DPS on Share Price Is More Than That of EPS

Zulkarnaen et al. (2016) grouped the factors that may affect stock prices in to three: economic fundamental (e.g. Inflation rate, bank interest rate, gross domestic products); fundamental of the company (e.g. return on assets, net profit margin and total assets turnover, debt equity to ratio); and technical factors (e.g. past prices

and stock volume). They conducted a study on the Fundamental and Technical Factors to the Prices of Stock of Residential Property Sector Companies listed on Indonesia Stock Exchange. In their study, they concluded that stock prices in 2010-2015 were influenced by fundamental variables including: return on assets, net profit margin and total assets turnover while indicator of technical variable is stock prices in the past. They stated that the following did not have influence on the stock prices: fundamental variable (inflation rate, Bank of Indonesia interest).

In their study conducted in India on the Impact of EPS and DPS on Stock Price, Velankar*et al* (2017) revealed that EPS and DPS have significant impacts on share price.The study showed that for every on unit rise in DPS and EPS will induce a 0.41 and 0.64 unit rise in share price respectively and that 83.43% variation in stock ice was being explained by the EPS and DPS. This results suggest that in India, the impact of EPS on share price is higher than that of DPS. According to the findings of Hunjra*et al* (2014)referred to in paragraph 2.3.2 above, EPS was a significant factor determining share prices in Pakistan capital market.

Islam*et al* (2015) conducted a study in Bangladesh, an economically potential developing country. This primary data based study attempts to explore the factors the investors of capital market critically consider while making their investment decisions. A total of 125 investors were surveyed conveniently with a structured questionnaire containing 25 variables. Specific variables like DPS, EPS, company goodwill, industry growth, SEC regulation, and change in government policy are found to be highly influential on share prices. With dividends, EPS, company goodwill, industry growth, SEC regulation, change in government policy, and law suit scoring a mean of 4.33, 4.12, 4.24, 4.24, 4.13, 4.07 and 4 .12 respectively. The least influential factors are P/E ratio, price hike of necessary goods, market rumor, etc. From these results, it appears that in Bangladesh, the impact of DPS on share price is higher than that of EPS.

METHODOLOGY

Research Design

The research design used was ex-post facto because it is ideal for conducting research on the events that have happened but cannot be manipulated by the researcher. The population of the study in this research is all conventional banks listed on The Nigerian Stock Exchange being a market where shares are quoted and actively traded. These are the twelve listed banks on the stock exchange. Total enumeration method was adopted in the study. The researcher has gathered various secondary data in quantitative and aggregative form which include data on EPS, DPS, share prices of twelve listed banks in Nigeria from the annual report of the banks and from The Nigerian Stock Exchange. The study covers the period from 2007 to 2016 financial years.

The market prices represent a 30-trading day average beginning from the date the financial statements were filed with The Exchange. This is hinged on the belief that 30 trading days are sufficient for the market to reflect the impact of the information contained in the financial statements.

Validity and Reliability of Research Instruments

The research instruments to be used are the annual reports and financial statements of the listed banks which were prepared in line with the applicable regulatory framework including: the Companies and Allied matters Act, Cap C20 LFN 2014, International Financial Reporting Standards (IFRS), BOFIA, the guidelines of the Central Bank of Nigeria (CBN), and the rules of The Nigerian Stock Exchange. The regulatory framework emphasise neutrality, reliability and completeness. Furthermore, these financial statements were audited providing an independent opinion as to the truth and fairness of the information contained therein.

The information relating to the share prices to be obtained from The Nigerian Stock Exchange is reliable

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS |Volume VIII Issue V May 2024

since the information is being obtained from its originator.

Model Specification and Description of Variables

Two independent variables and one dependent variable are relevant to the study. The independent variables are DPS and EPS whereas the dependent variable is share price.

The functional relationships between the variables are as follows:

P = f(D)…..... 1

P = f(E)… 2

P = f(D), f(E).....3

Where: P = share price; D = Dividend per share; E = Earnings per share.

$P_{it} = \beta_0 + \beta D_{it} + \mu_{it}$..... (Model 1)

$P_{it} = \beta_0 + \beta E_{it} + \mu_{it}$..... (Model 2)

Where β_0 = Intercept; $\beta_{it,}$ = Coefficients; μ_{it} = error term.

$$r_1 = \frac{n\sum DP - \sum D\sum P}{\sqrt{(n\sum D2 - (\sum D)2) * \sqrt{(n\sum P2 - (\sum P)2)}}} \quad \text{……(Model 3)}$$

Where: r_1 = correlation coefficient which provides a measure of the strength of impact of DPS on share prices; D = DPS; P = average share price; n = number of years.

$$r_2 = \frac{n\sum EP - \sum E\sum P}{\sqrt{(n\sum E2 - (\sum E)2) * \sqrt{(n\sum P2 - (\sum P)2)}}} \text{…….(Model 4)}$$

Where: r_2 = correlation coefficient which provides a measure of the strength impact of EPS on share price; E = EPS; P = average share price; n = number of years.

$$r_{1^2} = \frac{(P - \acute{P})^2}{(P - \acute{P})^2} \text{……(Model 5)}$$

Where:

r_{1^2} = Coefficient of determination which measures the proportion of changes in share price (P) that is related to changes in DPS (D); Pe = estimate of P given by the regression equation for each value of D; $\acute{P}$ = mean of actual values of P; P = individual actual values of P.

$$r_{2^2} = \frac{(Pe - \acute{P})^2}{(P - \acute{P})^2} \text{……(Model 6)}$$

Where: r_{2^2} = Coefficient of determination which measures the proportion of changes in share price (P) that is related to changes in EPS (E); Pe = estimate of P given by the regression equation for each value of E; $\acute{P}$ = mean of actual values of P; P = individual actual values of P.

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS |Volume VIII Issue V May 2024

DATA ANALYSIS, RESULTS AND DISCUSSION OF FINDINGS

Descriptive Statistic

The descriptive statistic is presented in Table 4.1 below.

Table 4.1: Descriptive Statistics

	ASP	EPS	DPS
Maximum	245.66	55.45	3.78
Minimum	0.5	- 49.31	0
Mean	11.10	1.11	0.47
Standard Deviation	23.65	8.28	0.65
Variance	559.71	68.53	0.41
Skewness	8.306	1.36	2.07
Kurtosis	82.03	33.29	8.42
Observation	120	120	120

Source: Researcher's Statistical Analysis, 2018

The period included in the study for analyses is limited to ten years from 2007 to 2016. The variables considered include; average share price (ASP), as dependent variables and EPS and DPS as independent variables. Following the standard procedures when dealing with variables with time series property, the study considered the respective statistical features of the series starting with the descriptive statistics of the variables. The mean statistic, for example, revealed that the average ASP, EPS and DPS for the period under consideration were 11.10, 1.11 and 0.47 respectively. These indicated that over the reviewed period, the mean for share price, earnings per share and dividend per share among the sampled firms were ₦11.10, ₦1.11 and ₦0.47 respectively.

In terms of the range (the difference between maximum and minimum values), the ASP and EPS series exhibited significant volatilities with standard deviation of 23.65 and 8.28 respectively. This could be attributed to the existence of significant outliers within the series. These when compared with the DPS shows that DPS appears to exhibit less volatility with the standard deviation of 0.65. With respect to the statistical distribution of the series, the skewness emerged to be mostly outside the zero bound for all with skewness values of 8.31, 1.36 and 2.07 for ASP, EPS and DPS respectively. Again, the skewness was mainly positive.

Table 4.2. Correlation Matrix

	ASP	EPS	DPS
ASP	1.000		
EPS	0.4556	1.000	
DPS	0.4879	0.2439	1.000

Source: Researcher's Statistical Analysis, 2018

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS |Volume VIII Issue V May 2024

Correlation Coefficients

The matrix of correlation coefficients presented in Table 4.2 provide insights into possible correlations among the variables of interest in the research model. From model Table 4.2, there is a moderate positive correlation between ASP as a dependent variable and EPS and DPS as independent variables with correlation coefficients of 0.46 and 0.49 respectively. This implies that the two explanatory variables have positive association with the average share price. However, it was observed that there is a weak positive association between EPS and DPS with correlation coefficient of 0.24. This suggested that the two variables can be modelled together without fear of multi-collinearity.

Diagnostic Test

The study employed panel data analysis for the purpose of drawing inference about the relationship between the dependent and independent variables. Parameter coefficients were estimated using pooled least squared regression, fixed effects and random effect estimation methods. The Hausman's specification test revealed with chi^2 statistics of 26.84 and the associated p-value of 0.000 suggested that the differences in coefficient is systematic, hence the test preferred fixed effect to random effect estimation. However, the p-value of the fixed effect test that all u-I = 0, of 0.2356 revealed that the presence of fixed effect is not statistically significant. Also the Breusch and Pagan Langrangian multiplier test for random effect with Chi^2 statistics of 0.00 and the associated p-value of 1.000 also revealed that the presence of random effect is not statistically significant. On the basis of the above, interpretations based on either fixed or random effect will not be efficient and valid. Hence, the study adopted pooled least squared regression, the results of which is presented in table 4.3 below.

Table 4.3. Pooled Least Square Regression

Source	SS	df	MS		Number of obs	120
Model	23877.15	2	11938.58		F (2, 117)	32.69
Residual	42728.29	117	365.199		Prob > F	0.0000
Total	66605.44	119	559.7096		R-squared	0.3585
					Adj R-squared	0.3475
					Root MSE	19.11
SP	**Coef.**	**Std. Err.**	**t**	**P>|t|**	**[95% Conf.**	**Interval**
EPS	1.022763	0.218214	4.69	0.000	0.5906021	1.454924
DPS	14.64778	2.791846	5.25	0.000	9.118676	20.17689
Cons	3.094279	2.15921	1.43	0.155	-1.181924	7.370481

Inferential Statistics

Test of Hypothesis one: Earning per share has no significant impact on average share price of Nigerian listed banks.

The inferential statistics presented in Table 4.3 revealed that EPS has a positive impact on the share price of Nigeria listed banks. This is confirmed by the positive coefficient of 1.02. This implies that ₦1 increase in EPS of the sampled banks induced ₦1.02 increase in share prices. This impact is also statistically significant as revealed by the t-statistic and the associated p-value of 4.69 and 0.000 respectively. This finding is consistent with our *a-priori* and theoretical expectation that EPS is expected to have a positive and

significant impact of share price.

Decision

On the basis of the above interpretation, we reject the null hypothesis one and accept the alternative hypothesis one and confirm that EPS has significant positive impact on the average share price of Nigerian listed banks. The research question one is therefore answered and research objective one achieved.

Test of Hypothesis two: Dividend per share has no significant impact on average share price of Nigerian listed banks.

The inferential statistics presented in Table 4.3 also revealed that DPS has a positive impact on the share price of Nigeria listed banks. This is established by the positive coefficient of 14.65. This implies that ₦1 increase in EPS of the sampled banks induced ₦14.65 increase in share prices. The implication of this is that the impact of DPS on share price is more than that of the EPS. This impact was found to be statistically significant as revealed by the t-statistic and the associated p-value of 5.25 and 0.000 respectively.

Decision

On the basis of the above interpretation, we reject the null hypothesis one and accept the alternative hypothesis one and confirm that DPS has significant positive impact on the average share price of Nigerian listed banks. The research question two answered and research objective two achieved. Given that the impact of DPS on the ASP is more than that of the EPS on the ASP, the research question three is also answered and the main objective of the research achieved. Furthermore the F-Statistics of 32.69 and the associated p-value of 0.000 indicate that the combined impact of EPS and DPS are statistically significant at 5%. The adjusted R^2 of 0.3475 indicates that 34.75% of the changes in the share prices of the sampled firms are caused by variables (EPS and DPS) included in the model, while the remaining 65.25% are caused by other factors extraneous to the model.

Discussion of Findings

After conducting the data analysis and interpreting them, the researcher has found that if Nigerian listed banks increase DPS by a naira (₦1), it will bring about ₦14.65 increase in ASP. The research reveals that DPS exert significant positive impacts on ASP which is consistence with the findings of Hunjra et al (2014), who in his study concluded that dividend policy has a significant impact on share prices. It is also consistence with the position of Ordu*et al* (2014) who found that there is a positive relationship between dividend payment and market share prices.

The research also reveals that if Nigerian listed banks increase EPS by a naira (₦1), it will bring about ₦1.02 increase in share price, and that EPS has significant positive impact on ASP of the listed banks. This is in line with the findings of Harper (2017) who posits that EPS has a significant impact on share prices. The research also agrees with the work of Bhatt and Sumangala (2012) which supports the motion that EPS impacts significantly the market value of an equity shares.

The researcher found that the impact of DPS on ASP is higher than that between EPS and ASP. This result is consistent with the findings of Islam*et al* (2015). The results of data which they obtained from sampled opinion had revealed a mean of 4.33 for DPS and 4.12 for EPS suggesting that DPS exerts higher impact on the stock prices in Bangladesh than EPS.

However, this result does not agree with the findings of Velankar *et al* (2017) who had found that the coefficient of regression for DPS and EPS were 0.41 and 0.64 units respectively, suggesting that he impact

of EPS on share price was higher than that of the DPS.

The results arealso inconsistent with the Dividend Irrelevant Theory of Millers and Modigliani, but align with the Bird-in-Hand Theory postulated by James Walter and Gordon since DPS has a significant impact on the ASP of the banks. The results are also consistent with Efficient Market Hypothesis given information published in the financial statements of the banks (i.e. DPS and EPS) influenced the investors behaviour in pricing of the stock during the period under review.

The researcher also found that changes in DPS and EPS only contributes to 34.75% changes in ASP, implying that the other 65.25% is caused by other factors, many of which are mentioned in the conceptual framework (paragraph 2.1). The research is consistence with the findings of Islam*et al* (2015) as well as the work of Islam*et al* (2014), Zulkarnaen*et al* (2016)**,** and others discussed in empirical framework. As discussed in session two, these scholars found that earnings and dividend policies of companies as well as many other factors impact on share prices. However, we are unable to conclude whether the results are consistent with Random Walk Theory of Burton Malkiel since past stock prices and volume traded can be among the other factors that contributed to 65.25% of the changes in the share prices. Comparing the results of this finding with that of Velankar *et al* (2017), it appears that DPS and EPS have greater impacts on share price in Indian capital market (83.43%) than in Nigerian capital market (34.75%).

CONCLUSION AND RECOMMENDATIONS

Conclusion

The research revealed that DPS and EPS exerted significant positive impacts on ASP of the listed banks. The researcher found that the impact of DPS on ASP was higher than that of EPS on ASP. The researcher also found that changes in DPS and EPS were not the only factors that impacted the share prices of listed bank in Nigeria. It is therefore reasonable to conclude that DPS and EPS has significant impact on share prices of listed stock and that investors has more preference for stock that pays dividends over the ones that do not. It is also concluded that DPS and EPS are not the only factors that impact on share prices of listed stock.

Recommendations

1. Directors of a company should strive to ensure the company makes sufficient and sustainable profits, and should make this information available to the investing public trough the financial statements in line with Efficient Market Hypothesis;
2. Directors should maintain a good dividend pay-out policy;
3. Government should adopt policies that will create enabling environment for companies to make sufficient and sustainable profits;
4. Investors and their advisers should consider impact of DPS and EPS when determining the price of a share of listed companies; and
5. When making investment decisions, investors and their advisers should consider the impacts of other factors on share prices in addition to those of DPS and EPS.

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